



Custom REF POINT 700016 CONTROL ON PUSH BUTTON IS OFF (MCP: K1)

SETTING DATA

AXES: X C

ACTUAL POSITION: -67.765 252.328

DISTANCE TO GO: 0.000 0.000

R0 : PART NO.: 12345678

**** CYCLE SETTING DATA :-**

R1 : NØ. OF TEETH OF GEAR (nos.)	42 nos.
R2 : X/TABLE HOME/START POSITION (minus mm.)	-1.000 mm.
R3 : JOB TOUCH POSITION (minus mm.)	-28.000 mm.
R4 : DEPTH OF CUT (Max.17mm)	1.270 mm.
R5 : CUTTING FEEDRATE (mm/min.)	200.000 mm/min.
R6 : CUTTING SPINDLE RPM (Max.3000)	3000 rpm.
R7 : INDEX CORRECTION (-2.00 to 2.00 deg.)	0.000 deg.
R8 : AUTO UNCLAMP SELECTION (0=OFF,1=ON)	0 no.

SETTING DATA

M-CODE LIST

PLC INPUTS

PLC OUTPUTS

EXIT



Custom REF POINT 21614 ↓ [red X] hardware limit switch

HURTH ZK10 CNC CHAMFERING

**** HURTH. :-**

- * CNC (3-axis) GEAR CHAMFERING
- * Model No. : ZK10, Sr. No.: 20512
- * Project No.: Project258.HURTH CHAMFERING_ZK10_020D

**** Capacity:-**

- * Spindle slide stroke (X-axis) Max.= 100mm
- * Cutter spindle speed Max.= 3000rpm
- * Spindle slide stroke Max.= 100mm
- * Indexing Head horizontal adjustment Max.= 540mm
- * Cutter spindle head vertical adjustment Max.= 200mm
- * Cutter spindle head swivel range Max.=90d
- ** Press SETTING DATA for Cycle Setting :-

SETTING DATA

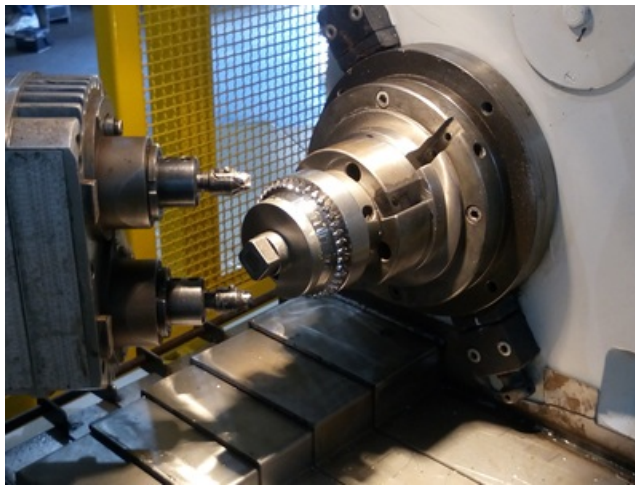
M-CODE LIST

PLC INPUTS

PLC OUTPUTS

EXIT





Machine Id	:- 1007	Serial No	:- 20512
Category	:- GEAR TOOTH CHAMFERING M/C (CNC & Conventional)	Model	:- ZK 10 CNC
Country	:- Germany	Make	:- Hurth CNC
Type of Machine	:- cnc gear tooth chamfering machine without Indexing Plates With Telescopic Covers and Safety Guards	Year	:- 2016
Weight	:- 2200.0	Dimensions	:- Overall Floor space: 1750x 2200mm, Height 1400mm
Power	:- 6.88KW	Location	:- Mumbai India...Under Power

Specification :-

we wish to bring to your notice the advantages of our Hurth ZK10 chamfering machine which we have converted into CNC .

The CNC control used is Siemens 828D and The advantages are as follows :

1. 1. **Instead fixed stroke length (old: 8/12/17mm), we can set now variable up to 100mm traverse of X-axis (stroking axis)**
1. 2. **Minimum No. of strokes limit removed now (limit was 30-strokes)**
1. 3. **Minimum no. of teeth limit removed now (limit was 6-teeth) Now it can be possible as little as one tooth.**
1. 4. **Maximum no. of teeth limit removed now (limit was 200-teeth) Now it can be possible from 1-360 teeth.**

- 5 **No index plate is required as this is controlled by “C” axis controlled by servo motor. CNC indexing offers much higher accuracy. Indexing correction is now possible from screen table -2.0 to +2.0 degree during production without changing mechanical setting.**
1. 6. **Cutter spindle RPM limit increased (old: 2800rpm with two speed stage of motor) Now it is variable. At present set 3000rpm which can also be increased as per Spindle head capacity.**
7. **Knee table movement (In/OUT) setting is motorized as we have fitted a Gearbox motor which can be operated from machine operator control panel thus reducing setting time.**
- 8 **Automatic Job clamp/unclamp is it selectable from CNC screen data table making it more user friendly.**
- 9 **In-feed slide (stroking slide) was on Cam operating mechanism and now it is an axis which is operated by CNC servo motor so In-feed accuracy is much higher**
10. **Earlier m/c was conventional and mechanical and now it is removed by cnc servo axes so old mechanism maintenance is removed.**

The CNC control used is Siemens 828D . The proto type machine is now ready for any trial at our works in Mumbai.

Siemens 828D CNC Control.

No Need Of Indexing Plates.

Machine with Twin Spindle Adjustable Head.

HURTH ZK10 CNC 3-axes (2-axis + Spindle) Gear Chamfering & Deburring machine

Salient Features:

- 1. 1. Variable traverse (X axis) of stroke length can be up to 100mm. It is servo driven and offer a high infeed accuracy.**
- 1. 2. Quill Stroke rates 1 to 170 rpm**
- 1. 3. CNC Indexing (C axis) offers better indexing accuracy. Further correction of indexing accuracy is possible from the input sheet.**
- 1. 4. Cutter spindle RPM limit increased to 3000 rpm and is variable.**
- 1. 5. The Knee table movement (In/out) setting is motorized.**
- 1. 6. The Automatic Job clamp/unclamp is available. Clamping is with push button and unclamping is programmable.**

Technical Details:

Maximum work piece 400mm

Range of Module for Chamfering 1 to 12 module

No. of teeth 1 to 360 teeth

Cutter Spindle speeds variable up to 3000rpm

Quill strokes variable 120rpm at 8mm stroke length

Quill stroke length 100mm

Range of Motors

- 1. 1. Servo Spindle Motor: SIEMENS 3-phase 415v, 3.7kw,1500rpm**
- 2. 2. X-axis (In-feed) Servo Motor: Siemens 3-phase 415v, 6nm, 3000rpm (1.5 Kw)**
- 3. 3. C-axis (Indexing) Servo Motor: Siemens 3-phase 415v, 6nm, 3000rpm (1.5Kw)**
- 4. 4. Head Setting Motor: 3-phase 415v 0.18kw, 1380rpm with reduction Gearbox .**

Total connected load: 6.88KW

Overall Floor space: 1750x 2200mm, Height 1400mm

Approximate weight: 2200kg